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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/660,179	09/11/2003	Guenter Herrmann	2721	7604

7590 11/15/2004

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EXAMINER

COURSON, TANIA C

ART UNIT	PAPER NUMBER
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2859

DATE MAILED: 11/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/660,179

Applicant(s)

HERRMANN ET AL.

Examiner

Tania C. Courson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 11-14, 16 and 17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. The election requirement stated in an office action (mailed August 19, 2004) is hereby repeated and thus made **FINAL**.
2. It is acknowledged that the Applicant elected Species I (claims 1-15) of Group I and further elected Group I (species shown in Fig. 1, claims 1-10 and 15).
3. Claims 11-14 and 16-17 are withdrawn from further consideration pursuant 37 CFR 1.142(b), as being drawn to a nonelected invention, there being **no allowable generic** or linking claim.
4. Thus, claims 1-10 and 15 will be further examined in this action.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-3, 6-8, 10 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Neu et al. (US 4,310,269).

Neu et al. discloses in Figs. 1-3, a drill sensor and associated method including the following steps:

- a) measuring a path over which a resistance produced by an object to be processed counteracts a processing tool during its advance movement and using the measured path for determination of a depth of drilling in the object (Fig. 3 and column 2, lines 6-12)
- b) further comprising using the determined path for generation of at least one signal selected from the group consisting of a penetration signal, a material thickness signal, and both (Fig. 3).
- c) further comprising using the at least one signal selected from the group consisting of a penetration signal, a material thickness signal, and both, as an input signal for further processes (Fig. 3);
- d) further comprising using as the processing tool as a tool selected from the group consisting of a chip-removing tool and a non-chip removing tool (Fig. 1, drill bit 12);
- e) further comprising using as the processing tool a tool selected from the group consisting of a drill and a mill (Fig. 1, drill bit 12);
- f) further comprising processing the object to be processed in form of a material composite, in which the material composite is composed of a plurality of layers selected from the group consisting of metallic layers, non-metallic layers and both (Fig. 1, workpiece 4)

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- g) further comprising retaining without consideration load fluctuations within a path which is covered by the processing tool during its advance movement through an element selected from the group consisting of the object to be processed and a material composite (Fig. 3);
- h) further comprising using piezo sensors for measuring the path (Fig. 2, piezoelectric disc 23 and column 3, lines 44-46).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 4-5 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Neu et al. in view of Martinez (US.3,407,509).

Neu et al. disclose a drill sensor and associated method, as stated above in paragraph 6.

Neu et al. do not disclose a visualization in form of a marking on an object to be processed by a process selected from the group consisting of printing and spray painting and comprising an object to be processed as a material composite composed of at least two carbon fiber plates which are fixed with one another by an adhesive material.

Martinez teaches locating method that consists of a visualization in form of a marking on an object to be processed by a process selected from the group consisting of printing and spray painting (Fig. 1, marking pen 57). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the a drill sensor and associated method of Neu et al., so as to include the visualization in form of a marking, as taught by Martinez, in order to enhance the visualization of the point of interest on the object to be processed.

Regarding claim 9: Neu et al. discloses the object to be processed (Fig. 1, workpiece 4) made of a solid material (Fig. 1). The particular type of material used to make the object to be processed, absent any criticality, is only considered to be the use of a “preferred” or “optimum” material out of a plurality of well known materials that a person having ordinary skill in the art at the time the invention was made would have find obvious to provide using routine experimentation based, among other things, on the intended use of Applicant’s apparatus, i.e., suitability for the intended use of Applicant’s apparatus. See In re Leshin, 125 USPQ 416 (CCPA 1960) where the court stated that a selection of a material on the basis of suitability for intended use of an apparatus would be entirely obvious. Therefore, one skilled in the art would change the type of material of the object to be processed in order to suit the needs of the user of the device.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant’s

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disclosure. The prior art cited on PTO-892 and not mentioned above disclose a depth penetration method and marking method:

Kozin et al. (US 6,665,948 B1)

Blankenship et al. (US 6,371,701 B1)

Griffith et al. (US 5,010,658)

Greensdale (US 4,936,024)

Landy (US 4,864,732)

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tania C. Courson whose telephone number is (571) 272-2239.

The examiner can normally be reached on Monday-Friday from 8:00AM to 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez, can be reached on (571) 272-2245.

The fax number for this Organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



DIEGO F.F. GUTIERREZ
SUPERVISORY PATENT EXAMINER
GROUP ART UNIT 2859

TCC
November 12, 2004